REMARKS

Reconsideration is respectfully requested.

I. Status of the Claims

Claims 1 – 22 are currently pending, with claims 6 and 9 – 22 having been previously been withdrawn due to a restriction requirement. Applicants cancel claim 4 without prejudice or disclaimer, and amend claims 1, 3, 5, 8 and 9. No new matter is introduced.

II. Rejections under 35 U.S.C. § 112

Claims 3, 5, 7 and 8 are rejected under the second paragraph of 35 U.S.C. § 112 as being indefinite. Specifically, the Examiner finds that the term "concentrated constant element" in claim 3 is unclear, and that the term "the elementary body" in claims 5, 7 and 8 is unclear and lacks sufficient antecedent basis.

The term "concentrated constant element" is described in the specification as, for example, a chip inductor (i.e., chip containing a number of discrete elements including an inductor) that can effectively be configured to act as a single element inductor (see, e.g., page 59, lines of Applicants' substitute specification of July 29, 2009 and element 134 of FIG. 29). Applicants submit that one skilled in the art at the time of the present invention would understand this device to represent a "lumped element circuit."[1] Therefore, Applicants amend claim 3 and the specification to replace the term "concentrated constant element" with the term --lumped element circuit--.

Applicants note that the term "the elementary body" appears in claims 5 and 8 and not claim 7, and submit that sufficient antecedent basis for this term is provided at line 6 of claim 1 ("an elementary body). With reference by way of example to page 31, lines 6 – 10 of Applicants' substitute specification of July 29, 2009 and element 11 of FIG. 2, the elementary body is described

[1] See, e.g., *The IEEE Standard dictionary of Electrical and Electronics Terms*, IEEE Std. 100-1996, Sixth Edition, 1997, pg,. 611.

as a dielectric body having an outer surface on which a helical conductor pattern is applied. Applicants submit that this description is consistent with the language of claim 1. However, and in the interests of prosecution efficiency, Applicants amend claim 1 and the specification to eliminate the term "elementary" and recite "a body." Applicants submit that the term "a body" in view of the specification is sufficiently descriptive to meet the requirements of the second paragraph of 35 U.S.C. § 112.

Therefore, Applicants respectfully request that the rejections of claims 3, 5, 7 and 8 under the second paragraph of 35 U.S.C. § 112 be withdrawn.

II. Rejections under 35 U.S.C. §§ 102, 103

Claims 1 – 3, 5, 7 and 8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Patent Publication No. JP 2002271123 to Yokoshima ("Yokoshima"). Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yokoshima in view of U.S. Patent Publication No. 2003/0169209 to Ohara et al. ("Ohara"). As claim 4 is canceled, the rejection as to claim 4 is moot. Applicants respectfully traverse the rejections of claims 1 – 3, 5, 7 and 8 under 35 U.S.C. §§ 102(b), 103(a).

In amended independent claim 1, Applicants claim:

> **1.** An antenna device comprising:
>
> a substrate;
>
> a conductor film which is disposed on a portion of the substrate;
>
> a loading section disposed on the substrate and constructed with a line-shaped conductor pattern which is formed in a longitudinal direction on a body made of a dielectric material;
>
> an inductor section for adjusting the antenna operating frequency, which connects one end of the conductor pattern to the conducive film; and
>
> a feed point disposed on the substrate, which feeds a current to a connection point of the one end of the conductor pattern to the conductor film,

> wherein a longitudinal direction of the loading section is arranged to be parallel to an edge side of the conductor film,
>
> a self resonance frequency of the loading section is higher than the antenna operating frequency, and
>
> the other end of the line-shaped conductor pattern is formed as an open end.
>
> (Emphasis added).

Yokoshima discloses an antenna module and substrate for mounting an antenna 1 (see, e.g., FIGs. 1 and 2 of Yokoshima). The Examiner submits that the antenna 1 of Yokoshima corresponds to Applicants' claimed loading section. Applicants respectfully disagree.

Applicants' antenna device is configured to include an antenna element that may be shorter than ¼ of an operating wavelength in order to conserve the size of the element and antenna. See, e.g., page 32, lines 2 - 10 of the substitute specification of July 29, 2009. This is enabled by providing a suitable combination of a loading section and an inductor section having a chip inductor that is adjustable, for example, to cause a resonance frequency of the loading section and the inductor section to match the operating frequency of the antenna (e.g., 430 Hz). See, e.g., page 32, line 11 through page 33, line 4 of the substitute specification of July 29, 2009. IN other words, and as claimed in amended independent claim 1, the inductor section of the claimed antenna device is configured for adjusting the antenna operating frequency.

In sharp contrast to Applicants' claimed device, Yokoshima does not disclose or suggest an inductor section that adjusts the antenna operating frequency. For example, as described at paragraph [0034] of Yokoshima, the impedance match part 4 of Yokoshima's device includes an inductance part 42 that comprises a conductive pattern and is not operative to adjust the antenna operating frequency:

> The impedance match part 4 which adjusts the impedance of coaxial cable C and the antenna 1 is formed between the attaching position of coaxial cable C of the substrate X for antennas, and feed opening pattern X11. The consistency capacitance part 41 by which this impedance match part 4 is electrically inserted in series between the node S when the inner conductor of coaxial cable C is connected, and the feed opening 3 of the antenna 1, It comprises the consistency inductance part 42

> electrically connected to the feed opening 3 and the ground side of coaxial cable C. Here, the consistency inductance part 42 comprises a conductive pattern formed on the substrate X for antennas

Applicants further submit that Yokoshima fails to disclose or suggest Applicants' claimed line-shaped conductor pattern having one end formed as an open end. Applicants acknowledge that Yokoshima discloses at paragraph [0037] that antenna modules have been configured without having a load inductance part X14:

> For example, as for drawing 7, the load inductance pattern X14 was loaded in the antenna 1. It is a figure showing the frequency characteristic at the time of using the antenna module A shown in drawing 1 thru/or drawing 6, and is a figure frequency's (a unit is MHz's) being shown on a horizontal axis, and showing a voltage standing wave ratio (VSWR; Voltage Standing Wave Ratio) on a vertical axis. The bandwidth of the frequency which can be used from the value of the voltage standing wave ratio shown in a figure when transmitting and receiving an electric wave, Center frequency was about 435 MHz, in this frequency band, it is about 450 MHz about 30 MHz shown by the figure Nakaya seal V2 from about 420 MHz shown by the figure Nakaya seal V1, and a voltage standing wave ratio did not change not much a lot, but the result that a big difference did not arise in a frequency characteristic was obtained. On the other hand, when the load inductance pattern X14 is not formed, on the substrate X for antennas. Only the conductive pattern formed so that it might extend about only 5 mm from the trailer pattern X12 is provided, The frequency regulation capacitance part 5 is connected between the tip of this conductive pattern, and the ground pattern X13, and the frequency characteristic at the time of having composition that the frequency regulation capacitance part 5 is loaded in the antenna 1 directly [approximately] is shown in drawing 8. Although the bandwidth of the frequency which can be used when transmitting and receiving an electric wave turns into width from the figure Nakaya seal V3 to V4, It turns out that the value of a voltage standing wave ratio changes from the arrow V1 in drawing 7 a lot with frequency as compared with the width to V2 it is not only clearly narrow, but, and a difference is greatly produced in a frequency characteristic in this frequency band. Thus, by loading the load inductance pattern X14 in the trailer P0 of the antenna 1, bandwidth which can be used when transmitting and receiving an electric wave can be made large, and the difference of the frequency characteristic within bandwidth can also be made small.

However, as further described in paragraph [0037] (with reference to FIGs 7 and 8), Yokoshima teaches that when the load inductance pattern X14 is not formed, the frequency

regulation capacitance part 5 (shown in FIG. 2) is directly connected between the tip of the antenna 1 and the ground pattern X13. Thus, even in this case, the antenna has no open end.

These deficiencies in Yokoshima are not cured with the addition of Ohara.

Accordingly, Applicants respectfully submit that amended independent claim 1 is neither anticipated nor made obvious by the cited references and stands in condition for allowance. As claims 2, 3, 5, 7 and 8 each depend from allowable independent claim 1, Applicants further submit that dependent claims 2, 3, 5, 7 and 8 are also allowable for at least this reason.

Therefore, Applicants respectfully request that the rejections of claims 1 – 3, 5, 7 and 8 under 35 U.S.C. §§ 102(b), 103(a) be withdrawn.

CONCLUSION

In view of the above amendments and remarks, it is respectfully requested that the application be reconsidered, and that the pending claims be allowed and the case passed to issue.

If there are any other issues remaining that the Examiner believes can be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

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Respectfully submitted,

By _____

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